

WHAT IS CLAIMED IS:

1. A display device comprising:

[0031] a display area on a substrate;

at least one power bus line of a first type;

at least one power bus line of a second type;

a cathode layer coupled to display elements in the display area and the power bus line of the first type;

an insulating layer formed on the cathode; and

a power supply plane formed on the insulating layer connected to the power bus line of the second type,

wherein the insulating layer separates the power supply plane from the cathode, and wherein the power supply plane provide even distribution of power to the EL elements.

2. The device of claim 1 wherein the power bus line of the first type is a negative power supply.

3. The device of claim 1 wherein the power bus line of the second type is a positive power supply.

4. The device of claim 1 further comprising one or more power supply lines coupled to the power supply plane for providing power to the display elements.
5. The device of claim 4 wherein one or more interconnections are made at different sides of the display area for connecting the power supply plane to the power supply lines.
6. The device of claim 5 wherein the interconnections are made at opposite sides of the display area.
7. The device of claim 5 wherein the interconnections are made at adjacent sides of the display area.
8. The device of claim 1 wherein the power supply plane connects to an anode of each display element through a via connection.
9. An organic light emission display device comprising:

a cathode layer;

an insulating layer covering at least one portion of the cathode layer; and

a power supply plane formed on the insulating layer overlapping the covered portion of the cathode layer to form a predetermined area under which a display area is formed,

wherein the power supply plane provides even distribution of power to the display area.

10. The device of claim 9 wherein the power supply plane connects to one or more power supply lines through one or more interconnections.

11. The device of claim 10 wherein the interconnections are made at two ends of the power supply lines.

12. The device of claim 10 wherein the power supply lines are in a mesh form.

13. The device of claim 10 wherein the interconnections are formed in areas of the power supply plane that do not overlap with the insulating layer.

14. The device of claim 9 further comprising a negative power supply coupled to the cathode layer.

15. A method for forming power supply of a light emission display device, the method comprising:

forming a cathode layer;

forming an insulating layer covering at least one portion of the cathode layer;
and

forming a power supply plane on the insulating layer overlapping the covered portion of the cathode layer to form a predetermined area under which a display area is located, and

wherein the power supply plane provides even distribution of power to the active display area.

16. The method of claim 15 further comprising forming one or more interconnections for connecting the power supply plane to one or more power supply lines that provide positive power to one or more display element in the display area.

17. The method of claim 16 wherein the interconnections are formed at two ends of each power supply line.

18. The method of claim 16 wherein the power supply lines are in a mesh form.
19. The method of claim 16 wherein the interconnections are formed in areas of the power supply plane that do not overlap with the insulating layer.
20. The method of claim 15 further comprising forming one or more interconnections for connecting the cathode layer to at least one power bus line in an area that do not overlap with the insulating layer.